

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of:  
Dirk Vetter et al.

Application No.: 10/574,213

Confirmation No.: 5527

Filed: October 9, 2006

Art Unit: 1651

For: PROTEIN-PROTEOPHORE COMPLEXES

Examiner: Aaron J. Kosar

**RESPONSE TO OFFICE COMMUNICATION**

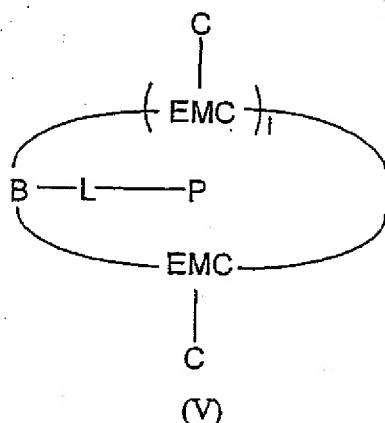
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Madam:

In response to the Office Communication mailed May 1, 2009, Applicants clarify below that they believe their prior election satisfies the Office's request to elect one chemical species. Reconsideration and acceptance of the species election is requested.

The Patent Office finds that Applicants' reply to the restriction/election requirement is not fully responsive. The election of Group I is clear. However, the Office finds that Applicants' identification of two structural formulae indicates an election of two (2) chemical species and directs that Applicants elect only one. Furthermore, the Office requests that the one chemical species have defined structural cooperative relations of the components (a) – (f) as these elements are defined on page 2 of the restriction/election requirement.

In Applicants' response filed February 12, 2009, Applicants elected formula V from page 23 and compound 90 from page 84 (page numbers refer to WO 2005/034909). As shown below, formula V is a schematic formula showing the elements of an encapsulating molecular chain (EMC) enclosing a protein (P) to form a dendrimer-protein inclusion compound (DPIC):



B: branching unit (base unit, core) containing at least one branching center Bc and at least two branching functional groups Bfg connected to or capable of reacting with an encapsulating unit EMC;

EMC: encapsulating molecular chain;

L: linker containing at least one functional group Lfg which is connected to the protein P or capable of connecting with functional groups present on the protein P under the formation of a chemical bond;

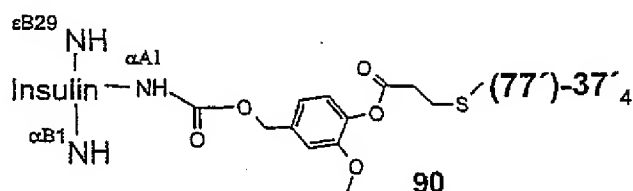
l: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 or 12, preferably 3, 4, 5, 6, 7 or 8, in particular 2, 3, 4, 5 or 6;

P: pharmacologically active protein;

C: capping group

WO 2005/034909, p. 12, line 22 to p. 13, line 7 and p. 23, lines 3-4.

Applicants also elected chemical compound 90:



In the elected species, the chemical of compound 90 may fit the schematic formula V. Therefore, by identifying both formula V and compound 90, Applicants respectfully submit that they have elected one single chemical and, with reference to formula V, elected the cooperative relations of the components (a) – (f).

When compound 90 and formula V are viewed together, the cooperative relationship among the elements defined in the restriction/election requirement as (a) – (f) becomes clear.

As can be seen from page 84 of WO 2005/034909, compound 90 results from the reaction of compound 87 and compound 37 four times. Compound 87 is shown on page 82. Compound 37 is shown on page 56.

Attached is a drawing of compound 90 in which the variables are assigned in accordance with formula V. Thus, the hyperbranched polymer (a) is represented by the EMC (+C), the core (b) is represented by B, the biologically active moiety (c) is represented by P, and the linker (d) is represented by L. As the drawing shows, in this structure the hyperbranched polymer (a) is attached to core (b) according to the requirements of (e) and the biologically active moiety (c) is attached to the hyperbranched polymer (a) via linker (d) (requirement f).

Thus, for these reasons, the election of chemical compound 90 and schematic formula V together shows the cooperative relations of the components (a) – (f) as the Patent Office requested. Therefore, it is respectfully submitted that the response filed February 12, 2009 was fully responsive to the restriction/election requirement and no further election is needed.

Alternatively, if the Examiner does not agree that together formula V and compound 90 define a species, Applicants elects as a species only compound 90. Under either alternative, the claims readable on the elected species are claims 32-44, 48-59 and 62.

Applicants respectfully thank the Examiner for the brief telephone discussion on May 11, 2009 clarifying the Communication and particularly the components (a) - (f) and where their definition could be found.

Application No.: 10/574,213  
Response to Office Communication dated May 1, 2009

Docket Number: 13907-00006-US

No fee is believed due for the filing of this paper. Should a fee be due, the Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 03-2775, under Order No. 13907-00006-US.

Dated:

Respectfully submitted,

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